

## SEQUENCE LISTING

<110> BEAUREGARD, Marc  
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 AGROTERRA BIOTECH INC.

<120> MB-1 ANALOGS AND USES THEREOF

<130> 15493-1US-1

<150> 60/329,759

<151> 2001-10-18

<160> 30

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 100

<212> PRT

<213> Recombinant molecule

<220>

<221> VARIANT

<222> (1)...(100)

<223> MB-1Trp

<400> 1

Met	Ala	Thr	Glu	Asp	Met	Thr	Asp	Met	Met	Thr	Thr	Leu	Phe	Lys	Thr
1				5					10					15	
Met	Gln	Leu	Leu	Thr	Lys	Ser	Glu	Pro	Thr	Ala	Met	Asp	Glu	Ala	Thr
			20					25					30		
Lys	Thr	Ala	Thr	Thr	Met	Lys	Asn	His	Leu	Gln	Asn	Leu	Met	Gln	Lys
		35					40					45			
Thr	Lys	Asn	Lys	Glu	Asp	Met	Thr	Asp	Met	Ala	Thr	Thr	Trp	Phe	Lys
	50					55					60				
Thr	Met	Gln	Leu	Leu	Thr	Lys	Thr	Glu	Pro	Ser	Ala	Met	Asp	Glu	Ala
65					70				75					80	
Thr	Lys	Thr	Ala	Thr	Thr	Met	Lys	Asn	His	Leu	Gln	Asn	Leu	Met	Gln
				85				90					95		
Lys	Gly	Val	Ala												
			100												

<210> 2

<211> 100

<212> PRT

<213> Recombinant molecule

<220>

<221> VARIANT

<222> (1)...(0)

&lt;223&gt; MB-1TrpRH

&lt;400&gt; 2

```

Met Ala Thr Glu Asp Met Thr Asp Met Cys Thr Thr Leu Phe Lys Thr
 1          5          10          15
Met Gln Leu Leu Thr Lys Ser Glu Pro Thr Ala Met Asp Glu Ala Thr
          20          25          30
Lys Thr Ala Thr Thr Met Lys Asn His Leu Gln Asn Leu Met Gln Lys
          35          40          45
Thr Lys Asn Lys Glu Asp Met Thr Asp Met Ala Thr Thr Trp Phe Lys
          50          55          60
Thr Met Gln Leu Leu Thr Lys Thr Glu Pro Ser Ala Met Asp Glu Ala
65          70          75          80
Thr Lys Thr Ala Thr Thr Met Lys Asn His Cys Gln Asn Leu Met Gln
          85          90          95
Lys Gly Val Ala
          100

```

&lt;210&gt; 3

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Recombinant molecule

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(100)

&lt;223&gt; MB-1LH

&lt;400&gt; 3

```

Met Ala Thr Glu Asp Met Thr Asp Met Met Thr Thr Cys Phe Lys Thr
 1          5          10          15
Met Gln Leu Leu Thr Lys Ser Glu Pro Thr Ala Met Asp Glu Ala Thr
          20          25          30
Lys Thr Ala Thr Thr Met Lys Asn His Leu Gln Asn Leu Met Gln Lys
          35          40          45
Thr Lys Asn Lys Glu Asp Met Thr Asp Met Ala Thr Thr Tyr Phe Lys
          50          55          60
Thr Met Gln Leu Leu Thr Lys Thr Glu Pro Ser Ala Met Asp Glu Ala
65          70          75          80
Thr Lys Thr Ala Thr Thr Cys Lys Asn His Leu Gln Asn Leu Met Gln
          85          90          95
Lys Gly Val Ala
          100

```

&lt;210&gt; 4

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Recombinant molecule

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(100)

&lt;223&gt; MB-1RH

&lt;400&gt; 4

Met	Ala	Thr	Glu	Asp	Met	Thr	Asp	Met	Cys	Thr	Thr	Leu	Phe	Lys	Thr
1				5					10					15	
Met	Gln	Leu	Leu	Thr	Lys	Ser	Glu	Pro	Thr	Ala	Met	Asp	Glu	Ala	Thr
		20					25					30			
Lys	Thr	Ala	Thr	Thr	Met	Lys	Asn	His	Leu	Gln	Asn	Leu	Met	Gln	Lys
		35					40					45			
Thr	Lys	Asn	Lys	Glu	Asp	Met	Thr	Asp	Met	Ala	Thr	Thr	Tyr	Phe	Lys
	50					55					60				
Thr	Met	Gln	Leu	Leu	Thr	Lys	Thr	Glu	Pro	Ser	Ala	Met	Asp	Glu	Ala
65						70				75					80
Thr	Lys	Thr	Ala	Thr	Met	Lys	Asn	His	Cys	Gln	Asn	Leu	Met	Gln	
				85				90					95		
Lys	Gly	Val	Ala												
			100												

&lt;210&gt; 5

&lt;211&gt; 100

&lt;212&gt; PRT

&lt;213&gt; Recombinant molecule

&lt;220&gt;

&lt;221&gt; VARIANT

&lt;222&gt; (1)...(100)

&lt;223&gt; MB-1TrpLH

&lt;400&gt; 5

Met	Ala	Thr	Glu	Asp	Met	Thr	Asp	Met	Met	Thr	Thr	Cys	Phe	Lys	Thr
1				5					10					15	
Met	Gln	Leu	Leu	Thr	Lys	Ser	Glu	Pro	Thr	Ala	Met	Asp	Glu	Ala	Thr
		20					25					30			
Lys	Thr	Ala	Thr	Thr	Met	Lys	Asn	His	Leu	Gln	Asn	Leu	Met	Gln	Lys
		35					40					45			
Thr	Lys	Asn	Lys	Glu	Asp	Met	Thr	Asp	Met	Ala	Thr	Thr	Trp	Phe	Lys
	50					55					60				
Thr	Met	Gln	Leu	Leu	Thr	Lys	Thr	Glu	Pro	Ser	Ala	Met	Asp	Glu	Ala
65						70				75					80
Thr	Lys	Thr	Ala	Thr	Cys	Lys	Asn	His	Leu	Gln	Asn	Leu	Met	Gln	
				85				90					95		
Lys	Gly	Val	Ala												
			100												

&lt;210&gt; 6

&lt;211&gt; 303

&lt;212&gt; DNA

&lt;213&gt; Recombinant molecule

&lt;220&gt;

&lt;221&gt; gene

&lt;222&gt; (1)...(303)

&lt;223&gt; MB-1Trp

```

<400> 6
atggctacgg aagacatgac cgacatgatg accaccctgt ttaaaactat gcagctgttg      60
accaagtcgg aaccacggc tatggacgag gccactaaaa cggctactac aatgaagaat      120
catcttcaaa acctgatgca gaagactaag aacaaagaag acatgacgga catggccact      180
acgtggttca aaacgatgca gttgttaacg aagaccgacc cctcggccat ggacgaggcc      240
acgaagacgg ctacaaccat gaaaaatcat ctgcagaact tgatgcaaaa aggcgtagct      300
taa                                              303

```

```

<210> 7
<211> 302
<212> DNA
<213> Recombinant molecule

```

```

<220>
<221> gene
<222> (1) ... (302)
<223> MB-1TrpRH

```

```

<400> 7
atggctacgg aagacatgac cgacatgtgc accaccctgt ttaaaactat gcagctgttg      60
accaagtcgg aaccacggc tatggacgag gccactaaaa cggctactac aatgaagaat      120
catcttcaaa acctgatgca gaagactaag aacaaagaag acatgacgga catggccact      180
acgtgcttca aaacgatgca gttgttaacg aagaccgagc cctcggccat ggacgaggcc      240
acgaagacgg ctacaaccat gaaaaatcat tgccagaact tgatgcaaaa aggcgtagct      300
ta                                              302

```

```

<210> 8
<211> 303
<212> DNA
<213> Recombinant molecule

```

```

<220>
<221> gene
<222> (1) ... (3)
<223> MB-1LH

```

```

<400> 8
atggctacgg aagacatgac cgacatgatg accaccctgct ttaaaactat gcagctgttg      60
accaagtcgg aaccacggc tatggacgag gccactaaaa cggctactac aatgaagaat      120
catcttcaaa acctgatgca gaagactaag aacaaagaag acatgacgga catggccact      180
acgtacttca aaacgatgca gttgttaacg aagaccgagc cctcggccat ggacgaggcc      240
acgaagacgg ctacaacctg caaaaatcat ctgcagaact tgatgcaaaa aggcgtagct      300
taa                                              303

```

```

<210> 9
<211> 303
<212> DNA
<213> Recombinant molecule

```

```

<220>
<221> gene
<222> (1) ... (303)
<223> MB-1RH

```

```

<400> 9
atgggtacgg aagacatgac cgacatgtgc accaccctgt ttaaaactat gcagctgttg      60
accaagtcgg aaccacggc tatggacgag gccactaaaa cggctactac aatgaagaat      120
catcttcaaa acctgatgca gaagactaag aacaaagaag acatgacgga catggccact      180
acgtacttca aaacgatgca gttgttaacg aagaccgagc cctcggccat ggacgaggcc      240
acgaagacgg ctacaacat gaaaaatcat tgccagaact tgatgcaaaa aggcgtagct      300
taa                                              303

```

```

<210> 10
<211> 303
<212> DNA
<213> Recombinant molecule

```

```

<220>
<221> gene
<222> (1) ... (303)
<223> MB-1TrpLH

```

```

<400> 10
atgggtacgg aagacatgac cgacatgatg accaccctgct ttaaaactat gcagctgttg      60
accaagtcgg aaccacggc tatggacgag gccactaaaa cggctactac aatgaagaat      120
catcttcaaa acctgatgca gaagactaag aacaaagaag acatgacgga catggccact      180
acgtggttca aaacgatgca gttgttaacg aagaccgagc cctcggccat ggacgaggcc      240

acgaagacgg ctacaacctg caaaaatcat ctgcagaact tgatgcaaaa aggcgtagct      300
taa                                              303

```

```

<210> 11
<211> 27
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> MB-1-11

```

```

<400> 11
atggccacta cgtacttcaa aacgatg                                              27

```

```

<210> 12
<211> 27
<212> DNA
<213> Artificial Sequence

```

```

<220>
<223> Tyr62Trp

```

```

<400> 12
atggccacta cgtggttcaa aacgatg                                              27

```

```

<210> 13
<211> 27
<212> DNA
<213> Artificial Sequence

```

<220>

<223> MG-1-13

<400> 13

atgatgacca ccctgttttaa aactatg

27

<210> 14

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligo 1 L13C

<400> 14

atgatgacca cctgcttttaa aactatg

27

<210> 15

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> MB-1-15

<400> 15

acggctacaa ccatgaaaaa tcatctg

27

<210> 16

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> Oligo 2 M87C

<400> 16

acggctacaa cctgcaaaaa tcatctg

27

<210> 17

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<223> MB-1-17

<400> 17

atgaccgaca tgatgaccac cctgttt

27

<210> 18

<211> 27

<212> DNA

<213> Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 3 M10C

&lt;400&gt; 18

atgaccgaca tgtgtaccac cctgttt

27

&lt;210&gt; 19

&lt;211&gt; 26

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; MB-1-19

&lt;400&gt; 19

atgaaaaatc atctgcagaa cttgat

26

&lt;210&gt; 20

&lt;211&gt; 27

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 4 L91C

&lt;400&gt; 20

atgaaaaatc attgccagaa cttgatg

27

&lt;210&gt; 21

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; MB-1-21

&lt;400&gt; 21

atggccacta cgtacttcaa aacg

24

&lt;210&gt; 22

&lt;211&gt; 24

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 5 Y62W

&lt;400&gt; 22

atggccacta cgtggttcaa aacg

24

&lt;210&gt; 23

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; MB-1 Trp

&lt;400&gt; 23

ttttaaacta tgcagctggt gaccaagtcg

30

&lt;210&gt; 24

&lt;211&gt; 30

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 6 L19E

&lt;400&gt; 24

ttttaaacta tgcaggaatt gaccaagtcg

30

&lt;210&gt; 25

&lt;211&gt; 43

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; MB-1Trp25

&lt;400&gt; 25

cgtgggttcaa aacgatgcag ttgttaacga agaccgagcc ctc

43

&lt;210&gt; 26

&lt;211&gt; 43

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 7 L68E

&lt;400&gt; 26

cgtgggttcaa aacgatgcag gagttaacga agaccgagcc ctc

43

&lt;210&gt; 27

&lt;211&gt; 43

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 8 L68E

&lt;400&gt; 27

gagggctcgg tcttcgttaa ctctgcacg gttttgaacc acg

43

&lt;210&gt; 28

&lt;211&gt; 44

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; MB-1 TrpHis-28

&lt;400&gt; 28

caatgaagaa tcatcttcaa aacctgatgc agaagactaa gaac

44

&lt;210&gt; 29

&lt;211&gt; 44

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 9

&lt;400&gt; 29

caatgaagaa tcatcttcaa gawdtsatgc agaagactaa gaac

44

&lt;210&gt; 30

&lt;211&gt; 44

&lt;212&gt; DNA

&lt;213&gt; Artificial Sequence

&lt;220&gt;

&lt;223&gt; Oligo 10

&lt;400&gt; 30

gttcttagtc ttctgcatsa hwtcttgaag atgattcttc attg

44